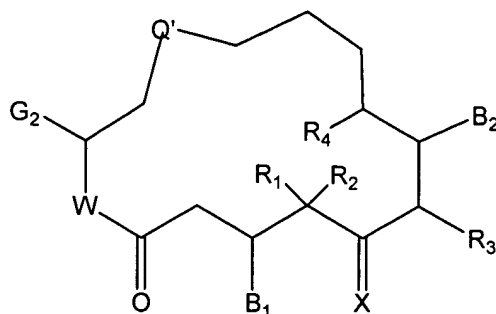


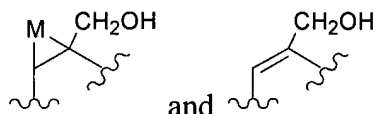
## AMENDMENTS TO THE CLAIMS

1(original). A method for the preparation of at least one 26-hydroxyepothilone of formula:

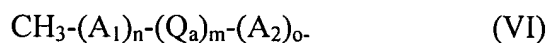


where:

Q' is selected from the group consisting of



G<sub>2</sub> is the following formula (VI)



A<sub>1</sub> and A<sub>2</sub> are independently selected from the group of optionally-substituted (C<sub>1</sub>-C<sub>3</sub>)alkylene and (C<sub>2</sub>-C<sub>3</sub>)alkenylene;

Q<sub>a</sub> is an optionally-substituted ring system containing one to three rings and at least one carbon to carbon double bond in at least one ring;

n, m, and o are integers independently selected from the group consisting of zero and 1, where at least one of m or n or o is 1;

W is O or NR<sub>6</sub>;

X is selected from the group consisting of O, and H, OR<sub>7</sub>;

M is O, S, NR<sub>8</sub>, or CR<sub>9</sub>R<sub>10</sub>;

B<sub>1</sub> and B<sub>2</sub> are selected from the group consisting of -OR<sub>11</sub> and -OC(=O)R<sub>12</sub>;

R<sub>1</sub>-R<sub>4</sub> and R<sub>12</sub>-R<sub>17</sub> are selected from the group consisting of H, alkyl, substituted alkyl, aryl, and heterocyclo, except R<sub>15</sub> is not hydrogen, and when R<sub>1</sub> and R<sub>2</sub> are alkyl, they can be joined to form a cycloalkyl;

R<sub>6</sub> is selected from the group consisting of H, alkyl, and substituted alkyl;

R<sub>7</sub> and R<sub>11</sub> are selected from the group consisting of H, alkyl, substituted alkyl, trialkylsilyl, alkyldiarylsilyl, and dialkylarylsilyl;

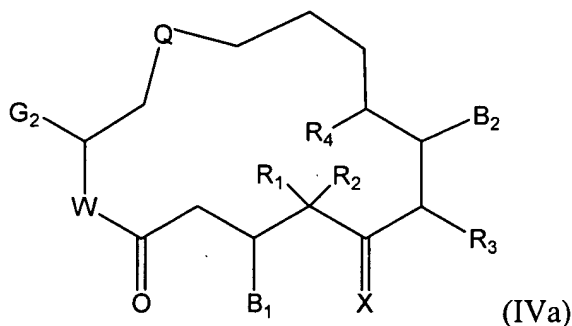
$R_8$  is selected from the group consisting of H, alkyl, substituted alkyl,  $R_{13}C(=O)-$ ,  $R_{14}OC(=O)-$ , and  $R_{15}S(O)_2-$ ; and

$R_9$  and  $R_{10}$  are selected from the group consisting of H, halogen, alkyl, substituted alkyl, aryl, heterocyclo, hydroxy,  $R_{16}C(=O)-$ , and  $R_{17}OC(=O)-$ ;

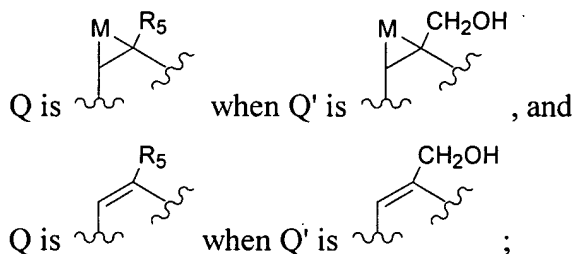
the pharmaceutically-acceptable salts thereof and any hydrates, solvates, or geometric, optical and stereoisomers thereof;

comprising the steps of:

a) contacting at least one epothilone of formula IVa



where:



$R_5$  is  $-CH_3$ ; and

W, X,  $G_2$ , M,  $B_1$ ,  $B_2$ ,  $R_1$ - $R_4$ , and  $R_6$ - $R_{17}$  are defined above;

the pharmaceutically-acceptable salts thereof and any hydrates, solvates, or geometric, optical and stereoisomers thereof;

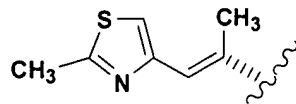
with a microorganism or enzyme derived therefrom capable of selectively catalyzing the hydroxylation of said  $R_5$  group to  $-CH_2OH$ ; and

b) effecting said hydroxylation.

2(original). The method of claim 1 wherein n is zero and m is 1.

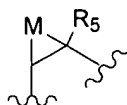
3(original). The method of claim 1 wherein n is zero, m is 1, and  $A_2$  is alkenyl.

4(Previously presented). The method of claim 1 wherein G<sub>2</sub> is

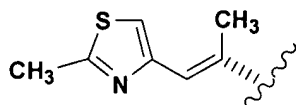


5(original). The method of claim 1 wherein said microorganism is *Amycolata autotrophica* ATCC 35203.

6(original). The method of claim 1 wherein Q is



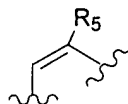
7(previously presented). The method of claim 6 wherein G<sub>2</sub> is



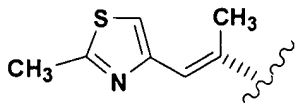
8(original). The method of claim 7 wherein said epothilone of formula IVa is epothilone B and said 26-hydroxyepothilone is 26-hydroxyepothilone B.

9(original). The method of claim 8 wherein said microorganism is *Amycolata autotrophica* ATCC 35203.

10(original). The method of claim 9 wherein said Q is



11(previously presented). The method of claim 10 wherein G<sub>2</sub> is



12(original). The method of claim 11 wherein said epothilone of formula IVa is epothilone D and said 26-hydroxyepothilone is 26-hydroxyepothilone D.

13(original). The method of claim 12 wherein said microorganism is *Amycolata autotrophica* ATCC 35203.

14-17(canceled).